Amendments to the Claims

Claim 1 (currently amended): A microelectronic structure, comprising:

a base substrate at least partially composed of an insulating material and formed with at least one opening;

a barrier layer provided over said base substrate, said barrier layer including an oxygen-containing iridium layer and an oxygen barrier layer, said oxygen barrier layer being composed of one of iridium dioxide and ruthenium dioxide;

an adhesion layer disposed between said base substrate and said ~~at least one~~ barrier layer, said adhesion layer containing at least one material selected from the group consisting of zirconium, hafnium, cerium, vanadium, chromium, and niobium~~, tantalum silicide nitride and tungsten silicide~~; and

a metal ~~silicon~~ silicide layer disposed on said base substrate directly between said ~~adhesive~~ adhesion layer and said opening, causing a layer stack of said metal ~~silicon~~ silicide layer, said ~~adhesive~~ adhesion layer and said oxygen-containing barrier layer to be formed above said opening.

Claim 2 (previously amended): The microelectronic structure according to claim 1, wherein:

said at least one opening completely penetrates said insulating material; and

at least one conductive material fills said at least one opening.

Claim 3 (cancelled).

Claim 4 (previously amended): The microelectronic structure according to claim 1, wherein said insulating material is composed of one of silicon nitride and silicon oxide.

Claims 5-9 (cancelled).

Claim 10 (previously amended): The microelectronic structure according to claim 1, including a metal-containing electrode layer covering said oxygen barrier layer.

Claim 11 (cancelled).

Claim 12 (previously amended): The microelectronic structure according to claim 2, wherein:

said at least one conductive material is disposed in said at least one opening.

Claim 13 (cancelled).

Claim 14 (currently amended): The microelectronic structure according to claim 1, wherein said ~~at least one~~ metal silicide layer contains at least one silicide selected from the group consisting of yttrium silicide, titanium silicide, zirconium silicide, hafnium silicide, vanadium silicide, niobium silicide, chromium silicide, iron silicide, cobalt silicide, palladium silicide, platinum silicide and copper silicide.

Claim 15 (original): The microelectronic structure according to claim 10, including a metal-oxide-containing layer covering said metal-containing electrode layer, said metal-oxide-containing layer being a layer selected from the group consisting of a dielectric metal-oxide-containing layer, a ferroelectric metal-oxide-containing layer and a paraelectric metal-oxide-containing layer.

Claim 16 (previously amended): The microelectronic structure according to claim 1, further comprising a noble metal layer disposed on said barrier layer.

Claims 17-23 (cancelled).